



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,437	12/03/2003	Eberhard Storz	028987/52807US	5349

23911 7590 07/13/2005

CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

WALTERS, JOHN DANIEL

ART UNIT	PAPER NUMBER
----------	--------------

3618

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,437

Applicant(s)

STORZ ET AL.

Examiner

John D. Walters

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 7-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05/28/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claims 7 – 16 have been examined. Claims 1 – 6 have been canceled by the applicant.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4)

because:

- reference characters "11" (page 5, paragraph 4), "12" (page 5, paragraph 4) and "13" (page 5, paragraph 1) have been used to designate "air intake openings".
- reference character "12" has been used to designate both "outlet opening" (page 4, paragraph 5) and "air intake opening" (page 5, paragraph 4).
- reference character "14" has been used to designate both "grating shaped bearing part" (page 5, paragraph 2) and "the air flow" (page 5, paragraph 3).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

- Section headings should appear in upper case without underlining or bold type.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim states that the convex separating partition is used as an air convection surface to cool air provided to a cooler module. It appears, from figure 4, that the air stream that is directed into air intake opening (item 11) is part of the same stream of air that is directed towards the cooler module (item 15) across the surface of the air accumulation chamber (item 2). There is no apparent reason that the portion of the stream that is directed into the air intake opening should be any cooler than the section of the stream that proceeds along the outer surface of the air accumulation chamber. The specification makes reference to the air moving across the exterior of the air accumulation chamber being "used as the air conveying surface for cool air to a cooling

module". It has been assumed, for the purposes of continuing examination, that claim 15 should read "conveying surface" instead of "convection surface".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuji et al. (6,471,558 B1). Nakatsuji et al. disclose an apparatus for air induction into an internal combustion engine comprising:

- at least one air intake stub tube, i.e. a pipe (Fig. 4, item 70) with an intake end, i.e. first end (Fig. 4, item 72);
- an air accumulation chamber at the front of the vehicle, i.e. air box (Fig. 4, items 88 and 90);
- wherein a front side for the chamber is formed by a front end covering of the vehicle (Fig. 4);
- wherein a back side for the chamber is formed by a convex separating partition adjacent to an engine chamber of the vehicle (Figs. 1 and 4);
- wherein at least one air intake stub tube draws air from the air accumulation chamber through the tube intake end (column 5, lines 13-15);

- wherein a tangential plane of the convex separating portion is transverse to a longitudinal axis of the vehicle and at an acute angle to a horizontal plane of the vehicle (Fig. 4);
- wherein at least one air intake opening is below the intake end of at least one stub tube (Fig. 6);
- wherein at least one accumulation chamber air intake opening is located adjacent to at least one air inlet opening at the front of the vehicle (Fig. 6, items 122 and 124).

In regards to claim 7:

Nakatsuji et al. does not specifically mention an “engine air filter container end” to the air intake stub tube. However, they state that “a second end 82 of the pipe 70 can be sized and positioned to communicate with any desired location within the hull” (column 5, lines 3-5). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to connect the end of the stub tube opposite the intake end to the engine air filter container in order to supply said filter with the incoming air flow.

In regards to claim 8:

Nakatsuji et al. does not make use of separate “elastic form pieces” to seal the ends of the accumulation chamber. The applicant makes use of a four component construction of his accumulation chamber. Nakatsuji et al. make use of a two component accumulation chamber (Fig. 4, items 88, 90, and 16). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use two components to form the accumulation chamber rather than four components to form the

accumulation chamber to reduce the complexity of the assembly and simplify construction.

In regards to claims 9 and 10:

Nakatsuji et al. does not place the air intake opening in the floor area of the separating partition. However, they do place the air intake opening in the front end covering at its interface with the separating partition (Fig. 6). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to place the air intake opening in the location most suited to the devices manufacturing method, whether it be in the front end covering or the separating partition.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuji et al. (6,471,558 B1) in view of Hayashi et al. (5,251,712). Nakatsuji et al. is silent on the practice of diverting part of the air intake towards the cooling module, moving said air along the outer surface of the convex separating partition. However, Hayashi et al. discloses an apparatus for air induction into an internal combustion engine which includes:

- a ceiling panel member defining an air passage through which air flows towards the radiator (column 2, lines 19-22 & Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the device of Nakatsuji et al. with the directional feature of Hayashi et al. to provide a specifically directed flow of air to the cooling module, i.e. radiator.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuji et al. (6,471,558 B1) in view of Hayashi et al. (5,251,712) as applied to claim 15 above, and further in view of Nakamura et al. (20020134598 A1). Nakatsuji et al. in view of Hayashi et al. is silent on the usage of additional filters over the air intake openings. However, Nakamura et al. discloses an apparatus for air induction into an internal combustion engine which includes:

- screening plates which enclose the outer periphery of the air induction port (page 3, paragraph 44 & Figs. 7 and 8. items 57a and 57b).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to take the apparatus described by Nakatsuji et al. in view of Hayashi et al. and add the screen of Nakamura et al. to provide additional filtering of the air stream entering the apparatus.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Walters whose telephone number is (571) 272-8269. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John D. Walters
Examiner
Art Unit 3618

JDW
SW



CHRISTOPHER P. ELLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600